#### Assembly, Installation and Operating Instructions

#### SAVE THESE INSTRUCTIONS

NOTE: Check all parts for shipping damage. In case of damage, DO NOT use. Contact Carrier/Invacare for further instructions.

## SAFETY SUMMARY

The following recommendations are made for the safe and proper installation and use of the Oxygen Holder:

#### **GENERAL WARNINGS**

DO NOT install this equipment without first reading and understanding this instruction sheet. If you are unable to understand the Warnings, Cautions and Instructions, contact a healthcare professional, dealer or technical personnel if applicable, before attempting to install this equipment - otherwise, injury or damage may occur.

#### **INSTALLATION WARNINGS**

After ANY adjustments, repair or service and BE-FORE use, make sure that all attaching hardware is tightened securely.

#### USER WARNINGS

After the adjustable back upholstery has been positioned to the end user's individual needs, the hook and loop fasteners straps MUST be securely fastened before applying the back upholstery cover. The adjustable back should be checked whenever entering the chair to ensure that the hook and loop fasteners are securely fastened.

Your therapist and physician should be consulted if you have any questions regarding individual limitations and needs.

As the needs of the individual become more complex, the evaluation becomes more important.

## ADJUSTABLE BACK UPHOLSTERY

The adjustable back upholstery is a new feature. It is a positioning device with numerous applications.

# THE ADJUSTABLE TENSION STRAPS.

The straps can be adjusted to various levels of tension to accommodate individual end users. In a typical scenario, the bottom two (2) straps can be adjusted tightly to support and/or assist the extensor muscles.

The top two (2) straps would be left looser to allow the upper body to lean back over the upholstery to fight gravity. This configuration may enable the back canes to be lowered for a quad. In another instance, you might loosen all of the straps and allow the end user to sink all the way back into the chair. Every person will be different. Let the therapist experiment with different positions and then decide. It is easy to change.

## THE BACK UPHOLSTERY COVER (FIGURE 1)

The back upholstery cover is designed for three (3) reasons:

The first is as a modesty cover to prevent one's posterior from protruding out of the chair.

The second is to keep the cushion from sliding out the back of the chair.

The third is as a sacral support depending upon how far or tight the flap is pulled under the seat cushion.

#### Removing Non-Adjustable Tension Back Upholstery

- 1. Cut cable tie that secures back upholstery to tab on axle mounting place.
- 2. Remove lock nut and button head cap screws that secure cane handles to frame tube.
- 3. Remove cane handles from frame tube.
- 4. Remove phillips head screws that secure upholstery to cane handles.
- 5. Remove upholstery from cane tubes.

#### Installing Adjustable Back Upholstery

- 1. Slide one (1) cane handle into each section (anchor loop/adjuster strap) of the adjustable back upholstery with grommet hole facing the rear of the chair.
- 2. Secure adjustable back upholstery to cane handles with mounting screws.
- 3. Set each cane in frame tube at desired height.
- 4. Thread screw from the outside of the frame tube through cane handle and securely tighten with locknut.

NOTE: Clean upholstery with warm water and mild detergent to remove superficial soil.

5. Slip adjuster straps through corresponding anchor loop and adjust back upholstery. Secure with hook and loop fasteners.





#### WARNINGS

After the adjustable back upholstery has been positioned to the end user's individual needs, the hook and loop fasteners MUST be securely fastened before applying the back upholstery cover. The adjustable back should be checked whenever entering the chair to ensure that the hook and loop fasteners are securely fastened.

6. Attach back upholster cover (hook and loop fasteners) to the back of the adjustable back upholstery (hook and Loop fasteners).

NOTE: Hook and loop fasteners on the back upholstery cover and adjustable back MUST line-up.

- 7. Flip the back upholstery cover over adjustable back upholstery and secure (hook and loop fasteners) to the front of the adjustable back upholstery.
- 8. Lay front portion of back upholstery cover on seat with existing cushion removed.
- 9. Adjust slack of back upholstery cover before replacing existing cushion.

Back Upholstery

## WHY USE ADJUSTABLE TENSION UPHOLSTERY: A CLINICAL DISCUSSION

The flexible sling upholstery commonly used on wheelchairs allows the wheelchair to fold without removing rigid components. Sling upholstery will stretch with use. Unfortunately, stretched upholstery does not support the back well. Stretched upholstery often allows the pelvis to drift into posterior tilt while the back assumes a kyphotic posture.

With the adjustable tension backrest, the sag can be taken out of the sling restoring the original tightness. Adjustable tension upholstery can also provide significant improvements to the seated posture and function of the wheelchair. By changing the tension of the strap, the backrest can be adjusted to accommodate back postures such as kyphosis, lordosis, stabilize the pelvis and back, and provide lateral stability.

In addition to restoring the sling to original tension, the adjustable tension backrest can be adjusted to help maintain the pelvis and back position, which can improve posture, balance and function.

The wheelchair backrest should be able to follow the natural anatomical contours of the back. When viewing a person from the side, the thoracic portion of the back will extend posteriorly to the pelvis and buttocks (FIGURE 2).

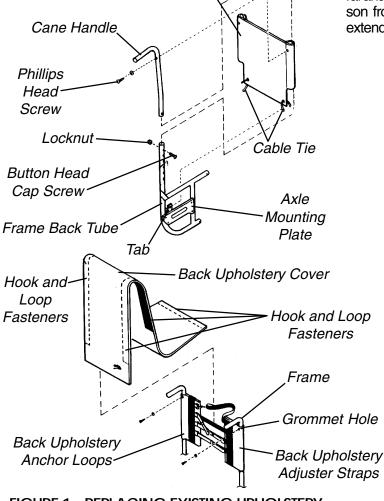


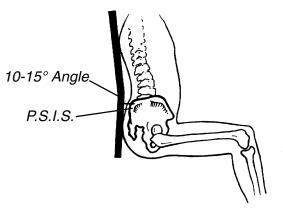


FIGURE 2

When using a non-adjustable flat backrest, the top portion of the upholstery will usually push the trunk forward of the center of gravity over the pelvis. To maintain the trunk in the upright posture, the user must have and use the back extensor musculature, or add tilt or recline to backrest (FIGURE 3).

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The best point of control for the pelvis is near the Posterior Superior Iliac Spine (P.S.I.S). The upper trunk should be relined until a balance posture is achieved, approximately 10 to 15 degrees (FIGURE 5).



#### FIGURE 5

When using adjustable upholstery, it is possible to tighten the lower portion of the backrest which assists in maintaining a neutral pelvis. The upper portion can then be adjusted to follow the natural curvature of the spine bringing the trunk back over the pelvis in a position of balance relative to the center of gravity (FIGURE 4).

**FIGURE 3** 

For individuals who have fixed kyphotic spine, the backrest can be adjusted to allow for an increased recline while providing increased contact and support of the back (FIG-URE 6).

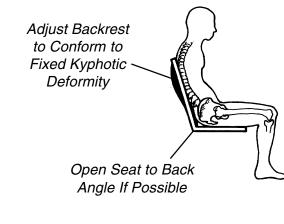
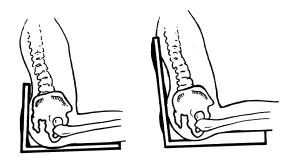


FIGURE 6

FIGURE 4

The height of the backrest and the amount of control provided by the adjustable tension upholstery will vary depending on the abilities of the user. An active paraplegic (SCI) may require a minimal back height which adds posterior stability to the pelvis and lets the trunk assume a natural balance over the top edge of the wheelchair upholstery. A less active para (with a high level of injury) or a quadriplegic may require a higher backrest with an increased level of recline (FIGURE 7). The effect of back support and the angle of the backrest are interconnected. Changes to one often requires change to the other if optimal support and balance are to be achieved. Use of a wheelchair with adjustable tension upholstery can significantly increase function, postural control, balance and comfort.



Para

Quad



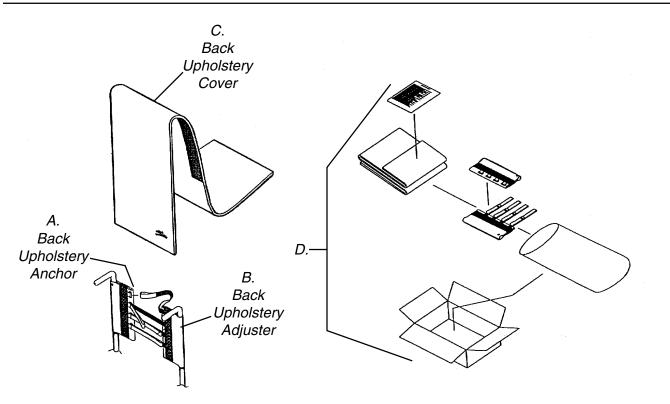


FIGURE 8

# ADJUSTABLE TENSION BACK UPHOLSTERY (FIGURE 8)

		А.	B. Hook	C. Nylon	D. Adjustable Back
Back	Seat	Back	And Loop	Back	Assembly
Height	Width	Anchor	Adjuster	Cover	Complete
10"-14"	14"	1037927	1037936	1037929	1039471
10"-14"	15"	1037927	1037936	1037930	1039472
10"-14"	16"	1037927	1037936	1037931	1039473
10"-14"	17"	1037927	1037928	1037932	1039474
10"-14"	18"	1037927	1037928	1037933	1039475
10"-14"	19"	1037927	1037937	1037934	1039476
10"-14"	20"	1037927	1037937	1037935	1039477
12"-16"	14"	1037916	1037925	1037918	1039478
12"-16"	15"	1037916	1037925	1037919	1039479
12"-16"	16"	1037916	1037925	1037920	1039480
12"-16"	17"	1037916	1037917	1037921	1039481
12"-16"	18"	1037916	1037917	1037922	1039482
12"-16"	19"	1037916	1037926	1037923	1039483
12"-16"	20"	1037916	1037926	1037924	1039484
14"-18"	14"	1037720	1037736	1037722	1039485
14"-18"	15"	1037720	1037736	1037723	1039486
14"-18"	16"	1037720	1037736	1037724	1039487
14"-18"	17"	1037720	1037721	1037725	1039488
14"-18"	18"	1037720	1037721	1037726	1039489
14"-18"	19"	1037720	1037737	1037727	1039490
14"-18"	20"	1037720	1037737	1037728	1039491

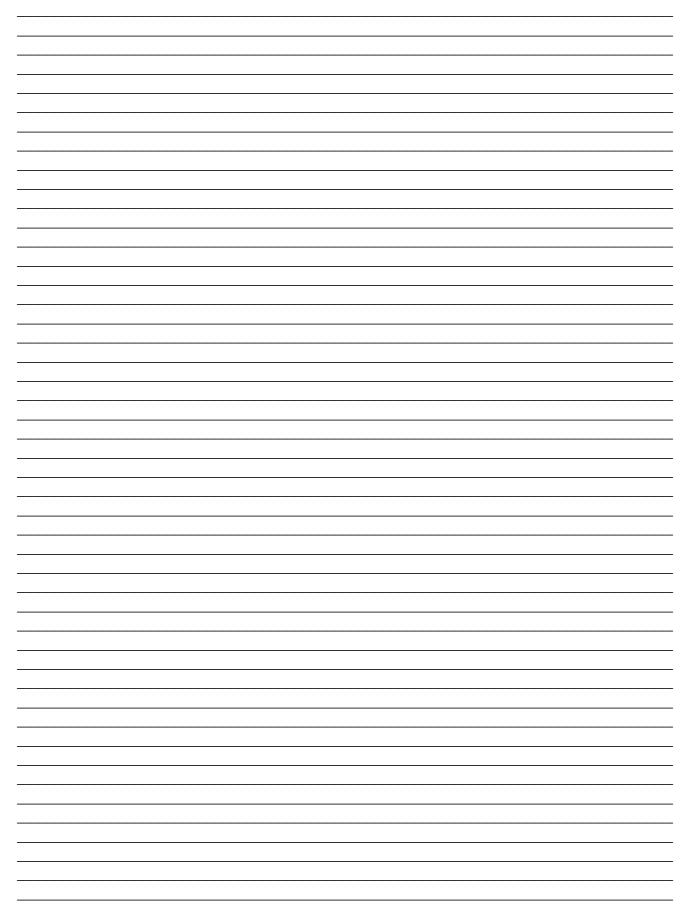
#### Packaging and Carton

Instruction Sheet	1039470
Poly Bag	1021866
Carton	40131X0110

#### **Back Upholstery Hardware Kit**

1026298

# NOTES



## LIMITED WARRANTY

PLEASE NOTE: THE WARRANTY BELOW HAS BEEN DRAFTED TO COMPLY WITH FEDERAL LAW APPLICABLE TO PRODUCTS MANUFACTURED AFTER JULY 4, 1975.

This warranty is extended only to the original purchaser/user of our products.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

Invacare warrants its product to be free from defects in materials and workmanship for one (1) year for the original purchaser. If within such warranty period any such product shall be proven to be defective, such product shall be repaired or replaced, at Invacare's option. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of any such product. Invacare's sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement.

For warranty service, please contact the dealer from whom you purchased your Invacare product. In the event you do not receive satisfactory warranty service, please write directly to Invacare at the address on the back cover. Provide dealer's name, address, model number, date of purchase, indicate nature of the defect and, if the product is serialized, indicate the serial number.

Invacare Corporation will issue a return authorization. The defective unit or parts must be returned for warranty inspection using the serial number, when applicable, as identification within thirty (30) days of return authorization date. DO NOT return products to our factory without our prior consent. C.O.D. shipments will be refused; please prepay shipping charges.

LIMITATIONS AND EXCLUSIONS: THE WARRANTY SHALL NOT APPLY TO PROBLEMS ARISING FROM NORMAL WEAR OR FAILURE TO ADHERE TO THE ENCLOSED INSTRUCTIONS. IN ADDITION, THE FOREGOING WARRANTY SHALL NOT APPLY TO SERIAL NUMBERED PRODUCTS IF THE SERIAL NUMBER HAS BEEN REMOVED OR DEFACED; PRODUCTS SUBJECTED TO NEGLIGENCE, ACCIDENT, IMPROPER OPERATION, MAINTENANCE OR STORAGE; OR PRODUCTS MODIFIED WITHOUT INVACARE'S EXPRESS WRITTEN CONSENT INCLUDING, BUT NOT LIMITED TO: MODIFICATION THROUGH THE USE OF UNAUTHORIZED PARTS OR ATTACHMENTS: PRODUCTS DAMAGED BY REASON OF REPAIRS MADE TO ANY COMPONENT WITHOUT THE SPECIFIC CONSENT OF INVACARE; PROD-UCTS DAMAGED BY CIRCUMSTANCES BEYOND INVACARE'S CONTROL; PRODUCTS REPAIRED BY ANYONE OTHER THAN AN AUTHORIZED INVACARE DEALER, SUCH EVALUATION SHALL BE SOLELY DETERMINED BY INVACARE.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES, IF ANY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IT SHALL NOT EXTEND BEYOND THE DURATION OF THE EXPRESSED WARRANTY PROVIDED HEREIN AND THE REMEDY FOR VIOLATIONS OF ANY IMPLIED WARRANTY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT PURSUANT TO THE TERMS CONTAINED HEREIN. INVACARE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.

THIS WARRANTY SHALL BE EXTENDED TO COMPLY WITH STATE/PROVINCIAL LAWS AND REQUIREMENTS.



Yes, you can:

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